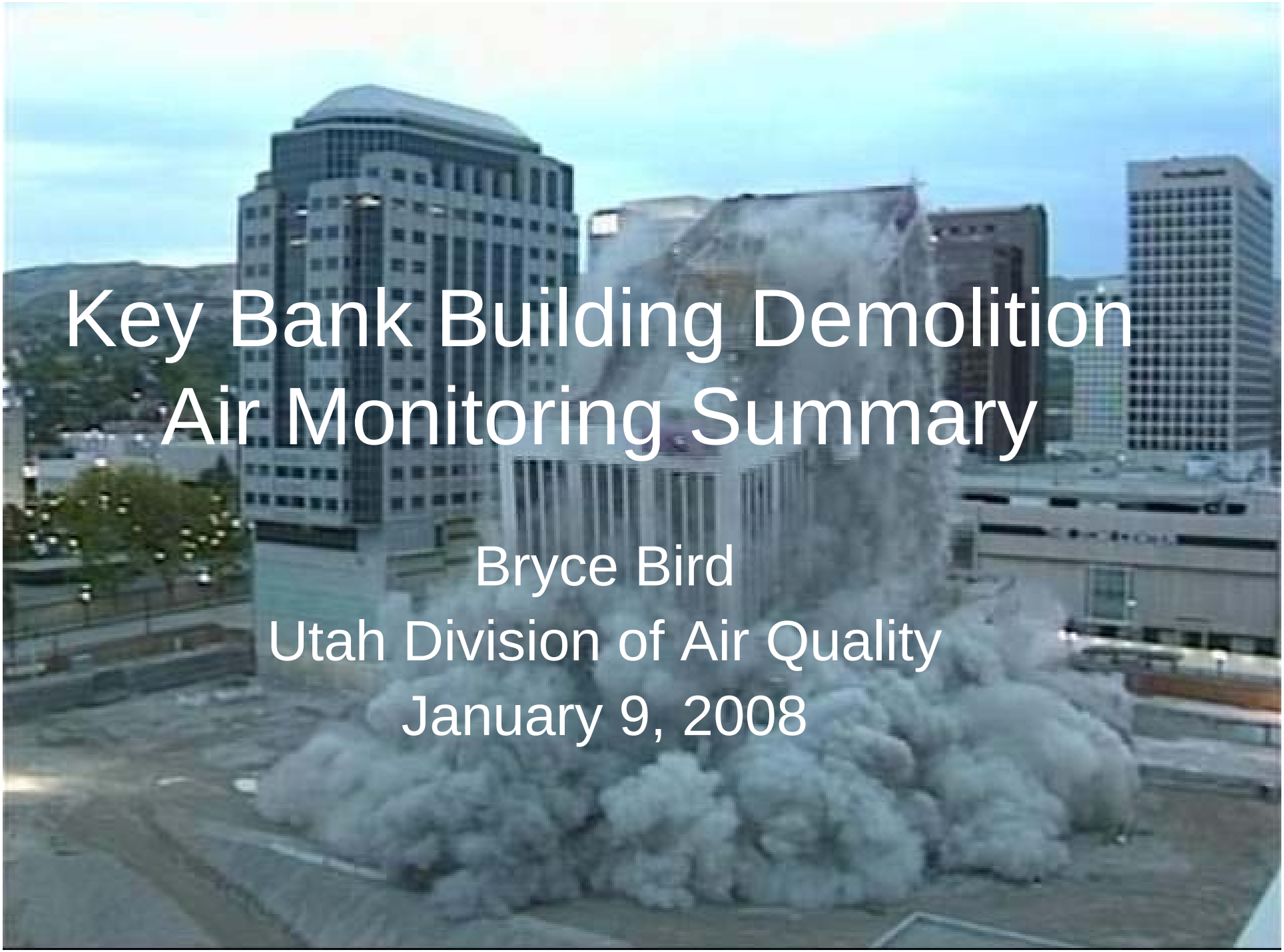

Key Bank Building Demolition Air Monitoring Summary

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Utah Division of Air Quality
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Key Bank Building Implosion

- On August 18th 2007, at 6:38 AM, the 50 South Main Tower was imploded
- The implosion was performed under a variance granted by the Utah Air Quality Board providing relief from the opacity requirements of the air quality rules
- The Division issued a press release encouraging the public to avoid the area and view the television coverage of the implosion

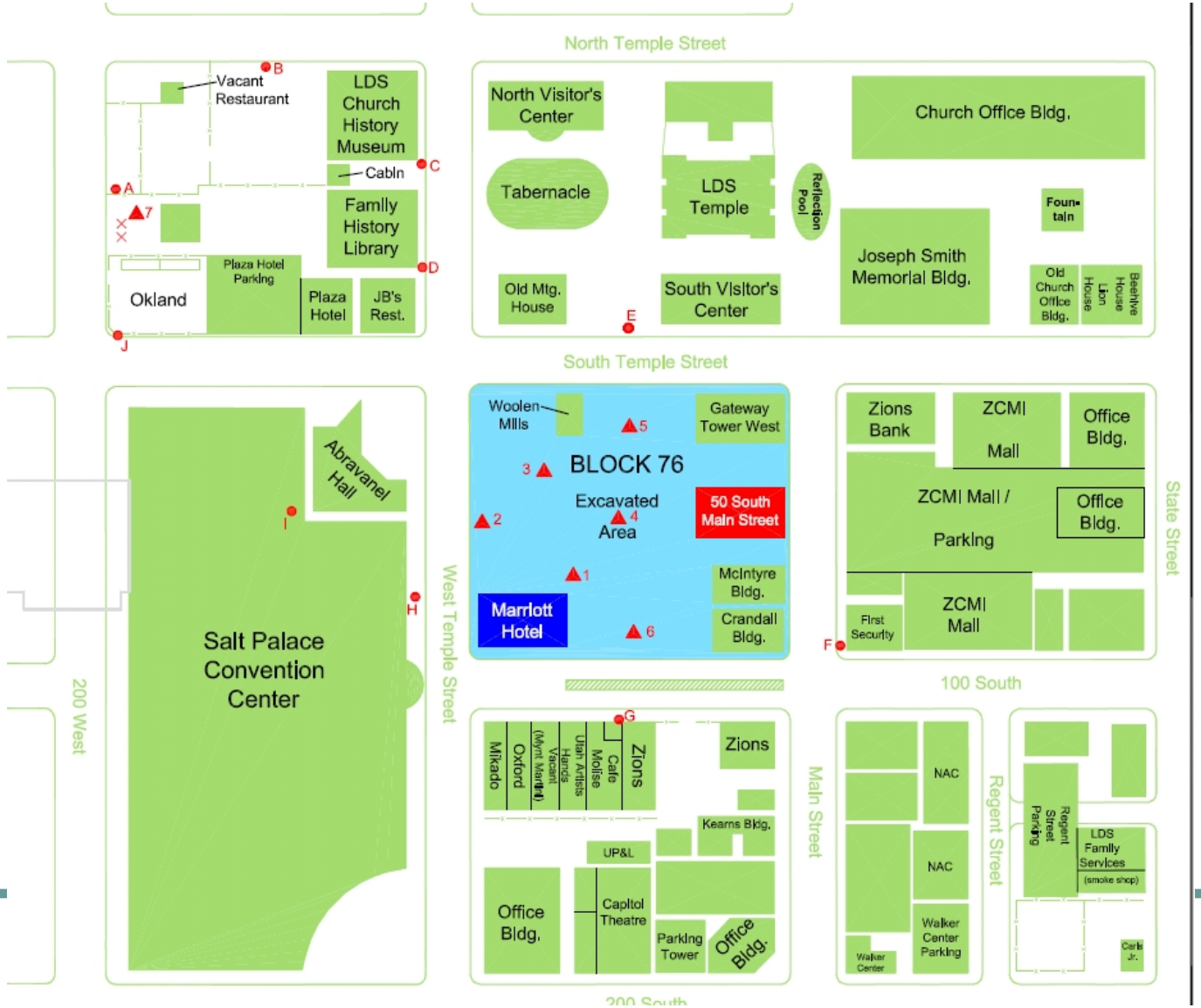
Key Bank Building Implosion

- As part of the variance approval the contractor was required to follow the demolition plan submitted with the variance request and perform air monitoring during the implosion to provide information to the board for use in future variance requests

Air Sampling Plan

- Air samplers were set up to operate for 5-days prior to and 5-days after the implosion
- Event sampling was placed down wind from the implosion
- The samplers included TSP, PM_{10},$PM_{2.5}$, Lead, Silica and Asbestos

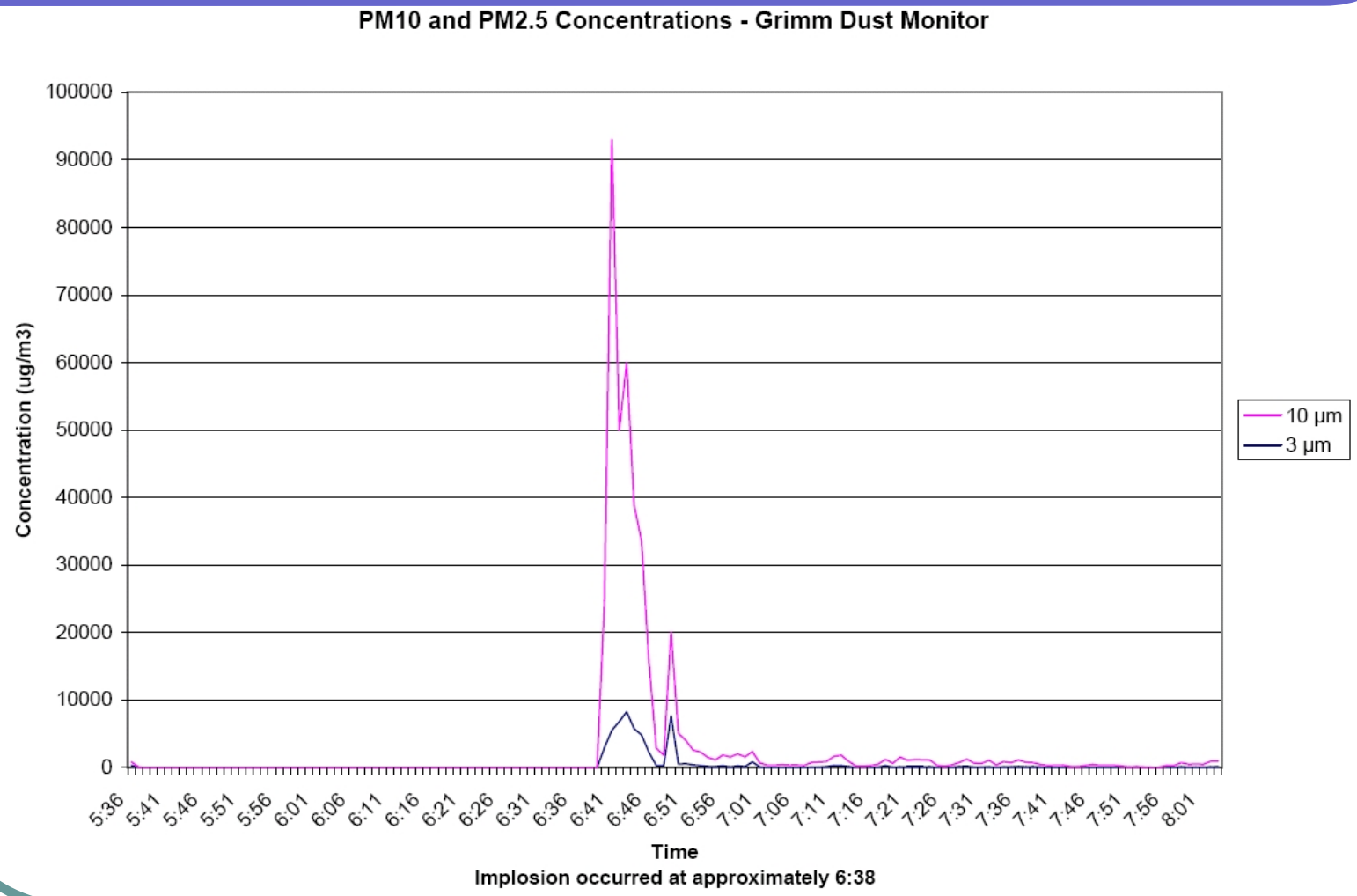
Air Sampling Plan



Air Sampling Plan

- Indoor samples were collected in the air handling system of 6 buildings within the declared dust impact zone

Air Monitoring Results



Air Monitoring Results

- Levels of airborne PM_{10} and $PM_{2.5}$ exceeded health standards for a short time following the implosion within the dust impact zone
- No hazardous constituent samples were above occupational exposure levels and most samples were below detection limits

Air Monitoring Results

- Many near perimeter samples were flagged by the lab due to overloading or loose debris on the filters
- The PM_{10} four-hour concentration was 685.71ug/m3 at the North-west edge of the dust impact zone
- The PM_{10} average concentration was 28.81ug/m3 at the NW monitor during the 3-25th hour after the implosion

Air Monitoring Results

- The calculated 24-hour average PM_{10} concentration at the NW edge of the dust impact zone was 138 ug/m3. This value is below the ambient standard of 150 ug/m3
- The Salt Lake PM_{10} concentrations were 19 ug/m3 at the Hawthorne monitor and 24 ug/m3 at the North Salt Lake monitor on August 18th.

Staff Conclusions

- Dust levels in the path of the plume were likely elevated beyond the dust impact zone but below the 24-hour standard
- The contractors involved, the City and the Division encouraged the public to avoid the area. Few people were observed in the areas surrounding the dust impact zone

Staff Conclusions

- The modeling evaluation for the variance request predicted an increase of 12 ug/m3 to the 24-hour average at the edge of the dust impact zone due to the building implosion. The modeling evaluation did not appear to take into consideration the post demolition cleaning activities

Ongoing Cleaning at 8:30AM

Staff Conclusions

- Levels of dust diminished quickly after the implosion
- The public was excluded from the area until cleaning was completed
- Overloading of hazardous constituent samples with dust should be addressed in future sampling plans for similar events

Staff Conclusions

- Dust was stirred for several hours during the cleaning activities
- There were no apparent elevated concentrations at the site in the days following the demolition